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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/709,345
Filing Date: April 29, 2004
Appellant(s): VANCE, SCOTT LADELL

R. Brian Drozd
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/5/09 appealing from the Office action mailed 7/25/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

Claims 1, 4, 5, 9-14, 22, 26-31, 33, 35 and 36 are being appealed.

Claims 37 and 41-45 are withdrawn from consideration because claims 37 and 41-45 are directed to non-statutory subject matter (non-statutory embodiments of computer readable medium such as paper, signal, software not tied to a machine; see para. [0038] of the instant application).

Based on an Examiner initiated telephone interview on 4/7/09 and a subsequent telephone call from Appellant attorney Brian Drozd (reg. no. 55,130) on 4/9/09, an agreement was reached by the Examiner and Appellant to expedite this appeal, Claims 37 and 41-45 are withdrawn from consideration of this appeal. See Interview Summary, paper no. 20090407.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,586,798	HOLMES	6-1971
2004/0243416 A1	GARDOS	12-2004
5,101,504	LENZ	3-1992
6,594,632 B1	WHITE	7-2003
4,426,733	BRENIG	1-1984

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1, 12-14, 22, 26, 31, 33 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes (US. 3,586,798; hereinafter "Holmes") in view of Gardos (US Pub No. 2004/0243416 A1; hereinafter "Gardos")

Regarding **claim 1**, Holmes teaches a device for hands-free push-to-talk functionality (see Holmes, col. 1, lines 25-40 and 61-68; hands-free device), comprising:

a hands-free push-to-talk sensor or switch (see Holmes, col. 2, lines 29-35, fig. 2, switch 20) including a tilt sensor for sensing a tilting of the user's head (see Holmes, col. 1, lines 35-36 and fig. 2, col. 2, lines 70-73), wherein the hands-free push- to-talk sensor or switch is operable by the tilt sensor sensing a tilting of the user's head (see Holmes, co1.1, lines 35-36 and fig. 2, col. 2, lines 70-73); and

means to control operation of a communication device in response to signals from the push-to-talk sensor or switch (see Holmes, col. 3, lines 1-6),

wherein the push-to-talk sensor or switch comprises the tilt sensor (see Holmes, col. 1, lines 35-36 and fig. 2, col. 2, lines 70-73),

wherein a transmit mode of the communications device (see Holmes, col. 1, lines 24-31, transmit mode of the push-to-talk) is activated in response to the tilt sensor being activated (see Holmes, col. 2, lines 67-75).

Holmes is silent to teaching that wherein

the tilt sensor for sensing a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle, and

the tilt senor being activated by being tilted more than the predetermined angle from the zero or normalized angle of the direction of force due to gravity for a predetermined time duration. However, the claimed limitation is well known in the art as evidenced by Gardos.

In the same field of endeavor (hands-free telephony device art), Gardos teaches a hands-free telephony device (see Gardos, para. [0012], fig. 1, headset 100 and the user's head 104) comprising

a tilt sensor (see Gardos, fig. 2, sensor 112, para. [0015]) for sensing a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle (see Gardos, para. [0017] and [0048]), and

the tilt senor being activated by being tilted more than the predetermined angle from the zero or normalized angle of the direction of force due to gravity for a predetermined time duration (see Gardos, para. [0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes with the teaching of Gardos in order to provide a hands-free headset with improved sensor for sensing the

user's head movement and retain full use of both of the user's hands (see Holmes, col. 1, lines 39-42 and Gardos, para. [0012]).

Thus, one of ordinary skill in the art at the time of the invention was made would have replaced the tilt sensor of Holmes with the tilt sensor of Gardos for the push-to-talk device of Holmes to improve the effectiveness of human-to-human spoken communication (see Gardos, para. [0012]).

Furthermore, Gardos teaches using the user's head action (i.e. tilting) parameters for a variety of control operations (see Gardos, para. [0043-0048]) and Holmes teaches using the user's head action (i.e. tilting) for controlling a radio push-to-talk device (see Holmes, col. 1, lines 25-40 and 61-68; hands-free device; fig. 2, col. 2, lines 70-73). Thus, the Examiner submits that the combination of Holmes and Gardos is proper.

Regarding **claim 12**, the combination of Holmes and Gardos also teaches the device of claim 1, wherein the communications device is a wireless communications device (see Holmes, col. 1, lines 10-11).

Regarding **claim 13**, the combination of Holmes and Gardos also teaches the device of claim 1, wherein the communications device is one of a radio (see Holmes, col. 1, lines 10-11) a cellular phone, a cordless phone, a personal digital assistant and a computer.

Regarding **claim 14**, the combination of Holmes and Gardos also teaches the device of claim 1, further comprising a headset (see Gardos, fig. 1, headset 100), wherein the push-to-talk sensor or switch is mounted to the headset (see Gardos, fig. 2, sensor 112).

Regarding **claim 22**, Holmes teaches a method for hands-free push-to-talk functionality (see Holmes, col. 1, lines 25-40), comprising:

detecting (see Holmes, col. 2, lines 29-35, fig. 2, switch 20) a tilt angle caused by the user's head (see Holmes, co1.1, lines 35-36 and fig. 2, col. 2, lines 70-73); and

controlling operation of a communications device in response to detecting a presence or absence of the tilt angle caused by the user's head (see Holmes, col. 3, lines 1-6).

Holmes is silent to teaching that wherein

the tilt angle caused by a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle for a predetermined time duration. However, the claimed limitation is well known in the art as evidenced by Gardos.

In the same field of endeavor (hands-free telephony device art), Gardos teaches a method for hands-free telephony device (see Gardos, para. [0012], fig. 1, headset 100 and the user's head 104),

wherein a tilt angle (see Gardos, fig. 2, sensor 112, para. [0015]) caused by a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is

tilted more than a predetermined angled from a zero or normalized angle for a predetermined time duration (see Gardos, para. [0017 and 0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes with the teaching of Gardos in order to provide a hands-free headset with improved sensor for sensing the user's head movement and retain full use of both of the user's hands (see Holmes, col. 1, lines 39-42 and Gardos, para. [0012]), and for the reasons stated above in claim 1.

Regarding **claims 26**, the combination of Holmes and Gardos also teaches the device of claim 22, further comprising activating a transmit mode (see Holmes, col. 1, lines 24-31, transmit mode of the push-to-talk) in the communication device in response to detecting the tilt sensor (see Holmes, col. 2, lines 67-75) being tilted more than the predetermined angle from the normalized angle for the predetermined time duration (see Gardos, para. [0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Regarding **claim 31**, Holmes teaches a method for making a device for hands-free push-to-talk functionality (see Holmes, col. 1, lines 25-40), comprising:

providing a hands-free push-to-talk sensor or switch (see Holmes, col. 2, lines 29-35, fig. 2, switch 20) including of a tilt sensor for sensing tilting of the user's head (see Holmes, co1.1, lines 35-36 and fig. 2, col. 2, lines 70-73),

wherein the hands-free push-to-talk sensor or switch is operable by the tilt sensor sensing tilting of the user's head (see Holmes, co1.1, lines 35-36 and fig. 2, col. 2, lines 70-73); and

providing means to control operation of a communication device in response to signals from the push-to-talk sensor or switch (see Holmes, col. 3, lines 1-6).

Holmes is silent to teaching that wherein

the tilt sensor for sensing a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle for a predetermined time duration. However, the claimed limitation is well known in the art as evidenced by Gardos.

In the same field of endeavor (hands-free telephony device art), Gardos teaches a method for hands-free telephony device (see Gardos, para. [0012], fig. 1, headset 100 and the user's head 104) comprising

providing a tilt sensor (see Gardos, fig. 2, sensor 112, para. [0015 and 0017]) for sensing a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle for a predetermined time duration (see Gardos, para. [0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes with the teaching of Gardos in order to provide a hands-free headset with improved sensor for sensing the

user's head movement and retain full use of both of the user's hands (see Holmes, col. 1, lines 39-42 and Gardos, para. [0012]), and for the reasons stated above in claim 1.

Regarding **claims 33**, the combination of Holmes and Gardos also teaches the method of claim 31, wherein providing the push-to-talk sensor or switch comprises:

providing the tilt sensor (see Gardos, fig. 1, sensor 112); and

adapting the tilt sensor to cause activation of a transmit mode (see Holmes, col. 1, lines 24-31, transmit mode of the push-to-talk) in the communications device in response to the tile sensor (see Holmes, col. 2, lines 67-75) being tilted more than a predetermined angle from a normalized angle of the direction of force due to gravity for the predetermined time duration (see Gardos, para. [0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Regarding **claim 36**, the combination of Holmes and Gardos also teaches the method of claim 31, further comprising:

providing a headset (see Gardos, fig. 1, headset 100); and

mounting the push-to-talk sensor or switch in the headset (see Gardos, fig. 2, sensor 112).

2. Claims 4, 5 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes and Gardos as applied to claims 1 and 22 above, and further in view of Lenz (US. 5,101,504; hereinafter "Lenz").

Regarding **claims 4**, the combination of Holmes and Gardos teaches the device of claim 1.

The combination of Holmes and Gardos is silent to teaching that further comprising means for maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay. However, the claimed limitation is well known in the art as evidenced by Lenz.

In the same field of endeavor, Lenz teaches a device for hands-free push-to-talk functionality comprising means for maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-35) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected time delay).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes and Gardos with the teaching of Lenz in order to improve a hands-free push-to-talk device to indicate to the user the operation mode of the communication device (see Lenz, col. 3, lines 40-48).

Regarding **claims 5**, the combination of Holmes and Gardos teaches the device of claim 1.

The combination of Holmes and Gardos is silent to teaching that further comprising means for switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay. However, the claimed limitation is well known in the art as evidenced by Lenz.

In the same field of endeavor, Lenz teaches a device for hands-free push-to-talk functionality comprising means for switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-33) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected time delay).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes and Gardos with the teaching of Lenz in order to improve a hands-free push-to-talk device to indicate to the user the operation mode of the communication device (see Lenz, col. 3, lines 40-48).

Regarding **claim 27**, the combination of Holmes and Gardos teaches the device of claim 22.

The combination of Holmes and Gardos is silent to teaching that further comprising:

maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay; and

switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay. However, the claimed limitation is well known in the art as evidenced by Lenz.

In the same field of endeavor, Lenz teaches a method for hands-free push-to-talk functionality comprising

maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-35) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected time delay); and

switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-33) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected • time delay).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes and Gardos with the teaching of Lenz in order to improve a hands-free push-to-talk device to indicate to the user the operation mode of the communication device (see Lenz, col. 3, lines 40-48).

3. Claims 9-11, 28-30 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lenz as applied to claims 1, 22, 31 and 37, respectively above, and further in view of Brenig (US. 4,426,733; hereinafter "Brenig") and White (US. 6,594,632 B1; hereinafter "White").

Regarding **claim 9**, the combination of Holmes and Gardos teaches the device of claim 1.

The combination of Holmes and Gardos is silent to teaching that wherein the push-to-talk sensor or switch comprises the air pressure sensitive switch, wherein a transmit mode of the communications device is activated in response to the user blowing on the air pressure sensitive switch with an air pressure greater than a preset air pressure. However, the claimed limitation is well known in the art as evidenced by Brenig and White.

In the same field of endeavor, Brenig teaches a push-to-talk sensor or switch comprises the air pressure sensitive switch (see Brenig, col. 2, lines 18-19; microphone), wherein a transmit mode of the communications device is activated in response to the air pressure sensitive switch (see Brenig, col. 2, line 16; "transmit"; and col. 4, line 31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes and Gardos with the

teaching of Brenig in order to provide improved hands-free operation and provide voice operation for the PTT headset (see Brenig, col. 3, lines 21-26).

The combination of Holmes, Gardos and Brenig is silent to teaching that a transmit mode of the communications device is activated in response to the user blowing on the air pressure sensitive switch with an air pressure greater than a preset air pressure. However, the claimed limitation is well known in the art as evidenced by White.

In the same field of endeavor, White teaches a hands-free push-to-talk communication device (see White, col. 4, lines 5-13) comprising a push-to-talk sensor or switch comprises the air pressure sensitive switch (see White, fig. 2a, microphone 261 and pressure sensor 263, col. 5, lines 1-4), wherein a transmit mode of the communications device is activated in response to the user blowing on the air pressure sensitive switch with an air pressure greater than a preset air pressure (see White, col. 3, lines 20-27 and col. 5, lines 8-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes, Gardos and Brenig with the teaching of White in order to allow activating the communication device in a hands-free manner (see White, col. 2, lines 64-67).

Regarding **claim 10**, the combination of Holmes, Gardos, Brenig and White also teaches the device of claim 9, further comprising means for maintaining the communications device in a transmit mode in response to at least one of detecting a

voice signal or the air pressure greater than the preset air pressure (see Brenig, col. 2, line 16; "transmit"; and col. 4, line 31) caused by the user blowing on the air pressure sensitive switch (see White, col. 3, lines 20-27 and col. 5, lines 8-9) after a selected time delay (see Brenig, col. 5, lines 64-65).

Regarding **claim 11**, the combination of Holmes, Gardos, Brenig and White also teaches the device of claim 9, further comprising means for switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the air pressure greater than the preset air pressure after a selected time delay (see Brenig, col. 5, lines 39-49; fig. 5; after 35 seconds, step 57 and step 65, without any audible command, the processor returns to standby mode 51).

Regarding **claim 28**, the combination of Holmes and Gardos teaches the method of claim 22.

The combination of Holmes and Gardos is silent to teaching that further comprising detecting an air pressure greater than a preset air pressure being blown on an air pressure sensitive switch by the user. However, the claimed limitation is well known in the art as evidenced by Brenig and White.

In the same field of endeavor, Brenig teaches a method for push-to-talk sensor or switch comprising detecting an air pressure (see Brenig, col. 2, lines 18-19; microphone).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes and Gardos with the teaching of Brenig in order to provide improved hands-free operation and provide voice operation for the PTT headset (see Brenig, col. 3, lines 21-26).

The combination of Holmes, Gardos and Brenig is silent to teaching that wherein detecting an air pressure greater than a preset air pressure being blown on an air pressure sensitive switch by the user. However, the claimed limitation is well known in the art as evidenced by White.

In the same field of endeavor, White teaches method for a hands-free push-to-talk communication device (see White, col. 4, lines 5-13) wherein detecting an air pressure greater than a preset air pressure being blown on an air pressure sensitive switch by the user (see White, fig. 2a, microphone 261 and pressure sensor 263, col. 5, lines 1-4; and col. 3, lines 20-27 and col. 5, lines 8-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes, Gardos and Brenig with the teaching of White in order to allow activating the communication device in a hands-free manner (see White, col. 2, lines 64-67).

Regarding **claim 29**, the combination of Holmes, Gardos, Brenig and White also teaches the method of claim 28, further comprising activating a transmit mode in the communications device in response to detecting the air pressure greater than the

preset air pressure (see Brenig, col. 2, line 16; "transmit"; and col. 4, line 31) being blown on the air pressure sensitive switch by the user (see White, col. 5, lines 1-9).

Regarding **claim 30**, the combination of Holmes, Gardos, Brenig and White also teaches the method of claim 29, further comprising:

maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the air pressure greater than the preset air pressure (see Brenig, col. 2, line 16; "transmit"; and col. 4, line 31) after a selected time delay (see Brenig, col. 5, lines 64-65); and

switching or maintaining the communications device in one of a receive or standby mode in response to an absence of at least one of a voice signal or the air pressure greater than the preset air pressure (see Brenig, col. 2, line 16; "receive"; and col. 4, line 31) after the selected time delay (see Brenig, col. 5, lines 64-65).

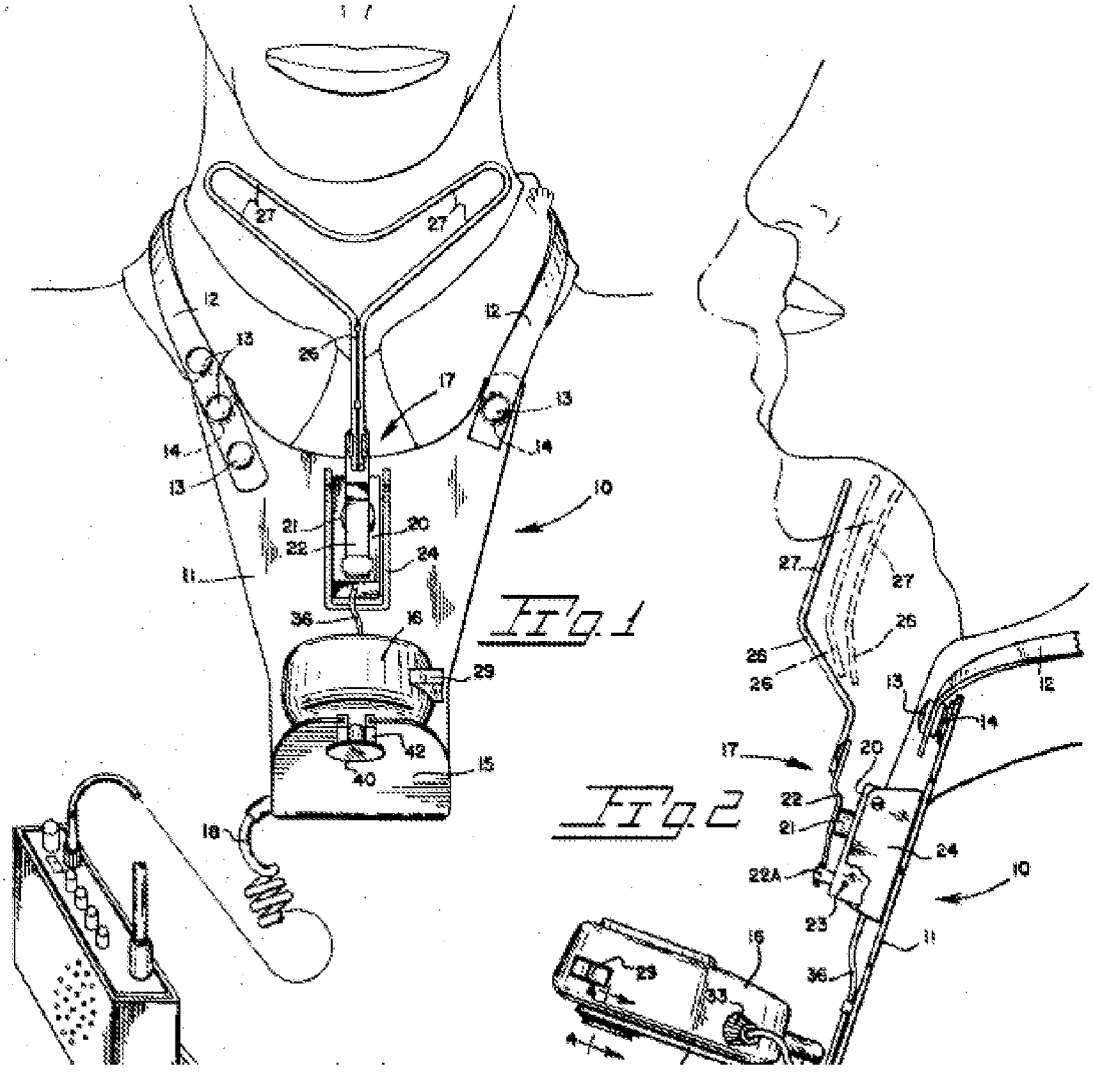
Regarding **claim 35**, the dependent claim is interpreted and rejected for the same reasons as set forth above in claim 9.

(10) Response to Argument

a) The combination of Holmes and Gardos is proper.

Holmes teaches a body-attached switch (sensor) for push-to-talk two-way radio provided for train crew members (i.e. brakemen) who must perform hazardous task and

retain full use of both arms and hands (see Holmes, col. 1, lines 10-42). Holmes' switch permits a slight tilting of the user's head to close the switch; in another word, Holmes' sensor permits sensing of the tilting of the user's head (see Holmes, col. 1, lines 34-36). Holmes' device is clearly shown in fig. 1 and 2.

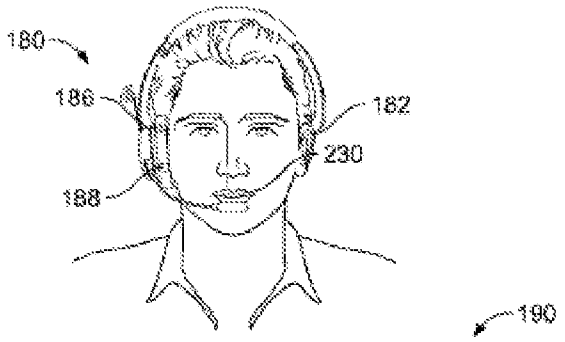


Furthermore, Holmes explicitly suggests that it is advantageous to avoid personal injury when Holmes' device is entangled with other equipment and the user performs hazardous tasks (see Holmes, col. 1, lines 50-52).

Therefore, the Examiner submits that one of ordinary skill in the art at the time of the invention was made would be motivated by the desire to avoid personal injury and eliminate discomfort of Holmes' device to improve Holmes' switch sensing the tilt of the head (specifically, the control arm 26). The Examiner submits that one of ordinary skill in the art at the time of the invention was made would have recognized the risk of harm and the discomfort imposed by control arm 26 to crew members performing hazardous tasks. The closeness of the control arm 26 to the user's throat creates a great risk of injury to the user due to the hazardous working environments such as sudden movements of a train or accidental collisions with other crew members.

Next, the Examiner turns to Gardos. In the first paragraph under DETAILED DESCRIPTION, Gardos explicitly teaches:

[0012] A telephony-style hands-free headset is used to improve the effectiveness of human-to-human and human-to-computer spoken communication. The headset incorporates sensing devices that can sense both movement of the speech articulation portion of a user's face and head movement.



Here, the Examiner submits that one of ordinary skill in the art at the time of the invention was made would recognize the similarities between Holmes' and Gardos' devices, such as wirelessly communicating voice, retaining use of both hands (hands-

free), and sensing head movements. Therefore, the Examiner submits that one of ordinary skill in the art at the time of the invention was made would have been motivated to improve Holmes' body-attached device (i.e. control arm 26) sensing head tilts with Gardos' hands-free headset sensing head movements.

Furthermore, the Examiner submits that the combination of Holmes and Gardos would result functionalities of Holmes (i.e. detecting the user's head tilt to control wireless push-to-talk communication) implemented by Gardos' headset (i.e. head movement sensor). Thus, Gardos' headset including the head movement sensor would be placed on the user's head to detect the user's head movement for the purpose taught by Holmes (push-to-talk control) and the disadvantageous control arm 26 of Holmes would be eliminated.

Therefore, the Examiner submits that the combination of Holmes and Gardos is proper.

Applicant argues that the combination of Holmes and Gardos is inoperable because the combination of Holmes and Gardos would detect the user's chest movement. However, the Examiner respectfully disagrees. As the Examiner described earlier, one of ordinary skill in the art at the time of the invention was made would place Gardos' headset including the head movement sensor on the user's head to detect the user's head movement for the purpose taught by Holmes (to control push-to-talk communication).

Furthermore, Applicant argues that, even if the combination is proper, the Holmes fails to teach a tilt sensor. However, the Examiner respectfully disagrees. More specifically, the Examiner submits that Holmes' switch button 21 and control arm 26 sense the tilting of the user's head (see Holmes, col. 35-36); therefore Holmes' button 21 and arm 26 reasonably read on the claimed "tilt sensor".

Moreover, Applicant argues that Holmes does not teach a tilt sensor being tilted more than the predetermined angle form the zero or normalized angle of the direction of force due to gravity for a predetermined time duration. However, the Examiner submits that Gardos teaches said claimed limitations. More specifically, Gardos, in para. [0025], teaches:

> Data from head orientation and motion sensor 112 (i.e. tilt sensor) is processed to produce time-stamped head action parameters that represent the head orientations and motions over time (for a predetermined time duration)… Head motion refers to movement of the head relative to an inertial reference, such as the ground on which the user is standing (i.e. direction of force due to gravity). In one example, the head action parameters represent time, tilt-left, tilt-right, tilt-forward, tilt-back, head-nod, and head-shake. Each of these parameters spans a range of values to indicate the degree of movement. In one example the parameters may indicate absolute deviation from an initial orientation or differential position from the last sample (for a predetermined time duration).

Therefore, the Examiner submits that the combination of Holmes and Gardos teaches a tilt sensor being tilted more than the predetermined angle form the zero or normalized angle of the direction of force due to gravity for a predetermined time duration.

Still, Applicant argues that Gardos is directed to speech recognition and Holmes is direction to push-to-talk and that they are not combinable related fields of arts. However, the Examiner respectfully disagrees. More specifically, the Examiner submits that the teachings in Gardos were not limited to speech recognition technology. For

example, the Examiner submits that one of ordinary skill in the art at the time of the invention was made would have recognized that the technology of using a headset was not limited to speech recognition technology, rather a headset could be used for portable media players, voice communications; and that a head motion sensor is not limited to speech recognition technology, rather a head motion sensor could be used for controlling push-to-talk communication as suggested by Holmes.

b) Lenz teaches maintaining the transmit mode in response the sensor being activated after a selected time delay.

Applicant argues the Lenz does not teach or suggest maintaining the transmit mode in response the sensor being activated after a selected time delay. However, the Examiner respectfully disagrees.

Mores specifically, Lenz teaches (see Lenz, col. 3, lines 31-43) that:

> "In the most common two-way radios where the switch must be depressed as long as the person is talking and transmitting, the wearer can comfortably keep his shoulder raised for an extended period such as a minute while talking, all without affecting use of his hands and head ....
>
> In order to indicate to the wearer when he has operated the switch, the switch is constructed so that it creates an easily heard "click" noise both when it is closed and when it is opened again."

The Examiner submits that Lenz teaches that a user of the two-way radios activating a switch and, after a selected time delay, the user hears a "click" noise notifying the user of the current transmit mode. Then Lenz teaches maintaining said transmit mode as long as the user depressing the switch (keeping the switch activated) after the "click" nose.

Thus, the Examiner submits that Lenz teaches maintaining the transmit mode in response the sensor being activated after a selected time delay.

Furthermore, Applicant argues Lenz fails to disclose the disputed limitation because the "click" in Lenz occurs only after the switch is already in the transmit mode. The Examiner submits that claim 4 requires "maintaining" the transmit mode after a selected time delay; not “only maintaining” the transmit mode after a selected time delay. Thus, the Examiner submits Lenz’s teaching reads on “maintaining the transmit mode after a selected time delay”.

c) Brenig and White teach the air pressure sensitive switch activating a transmit mode in response to the user blowing on the air pressure sensitive switch.

The Examiner submits that Brenig teaches a push-to-talk sensor or switch comprises the air pressure sensitive switch (see Brenig, col. 2, lines 18-19; a microphone is an air pressure switching sensing a change in air pressure propagated by human vocal cords), wherein a transmit mode of the communications device is activated in response to the air pressure sensitive switch (see Brenig, col. 2, line 16; "transmit"; and col. 4, line 31).

The Examiner submits that White teaches a hands-free push-to-talk communication device (see White, col. 4, lines 5-13) comprising a push-to-talk sensor or switch comprises the air pressure sensitive switch (see White, fig. 2a, microphone 261 and pressure sensor 263, col. 5, lines 1-4), wherein a transmit mode of the communications device is activated in response to the user blowing on the air pressure

sensitive switch with an air pressure greater than a preset air pressure (see White, col. 3, lines 20-27 and col. 5, lines 8-9).

Applicant argues that both Brenig and White are directed to speech recognition technology and are not combinable with Holmes. However, the Examiner respectfully disagrees for similar reasons set forth for Gardos.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Wen W Huang/

Examiner, Art Unit 2618

Conferees:

/Matthew D. Anderson/

Supervisory Patent Examiner, Art Unit 2618

Ed Urban

/Edward Urban/

Supervisory Patent Examiner, Art Unit 2618